

WHAT IS CLAIMED IS:

1 1. An apparatus for encrypting an identifier, the
2 apparatus comprising:
3 a pad for entering an identifier;
4 a circuit, adjacent the pad, for encrypting the entered
5 identifier; and
6 a link, communicatively coupling the pad and the encrypting
7 circuit.

1 2. The apparatus of claim 1,
2 wherein the pad comprises
3 a touch pad.

1 3. The apparatus of claim 2,
2 wherein the touch pad comprises
3 an N-wire-technology touch pad.

1 4. The apparatus of claim 2,
2 wherein the touch pad comprises
3 a four-wire-technology touch pad.

1 5. The apparatus of claim 2,
2 wherein the touch pad comprises
3 a seven-wire-technology touch pad.

1 6. The apparatus of claim 1,
2 wherein the pad comprises
3 a touch screen.

1 7. The apparatus of claim 1,

2 wherein the pad comprises
3 a pad for entering a personal identifier (PIN).

1 8. The apparatus of claim 1, wherein the encrypting
2 circuit comprises
3 a CPU; and
4 a memory, coupled to the CPU and programmed to encrypt.

1 9. The apparatus of claim 8, wherein the CPU and
2 programmed memory are the first CPU, programmable to encrypt the entered
3 identifier, through which the identifier passes.

1 10. The apparatus of claim 1, wherein the encrypting
2 circuit comprises
3 a microcontroller programmed to encrypt.

1 11. The apparatus of claim 1, wherein the encrypting
2 circuit comprises
3 an application-specific integrated circuit (ASIC).

1 12. The apparatus of claim 1, further comprising
2 a housing enclosing the encrypting circuit and link and
3 resistant to access.

1 13. The apparatus of claim 12, wherein the housing
2 comprises
3 housing resistant to tampering.

1 14. The apparatus of claim 12, wherein the housing
2 comprises
3 housing resistant to tapping.

1 15. The apparatus of claim 12, wherein the housing
2 comprises
3 housing at least partially of chip-on-glass technology.

1 16. The apparatus of claim 12, wherein the housing
2 comprises
3 housing in which the encrypting circuit is embedded.

1 17. The apparatus of claim 12, wherein the housing
2 comprises
3 housing in which the link and encrypting circuit are
4 embedded.

1 18. An apparatus for encrypting an identifier, the
2 apparatus comprising:
3 a pad, comprising one of a touch screen and an N-wire-
4 technology touch pad, for entering a personal identifier (PIN);
5 a circuit, adjacent the pad and comprising one of a
6 programmed microcontroller and an ASIC, for encrypting the entered
7 identifier;
8 a link, communicatively coupling the pad and the encrypting
9 circuit; and
10 a housing, resistant to access and at least partially of
11 chip-on-glass technology, in which the link and encrypting circuit
12 are embedded.

1 19. A method for encrypting an identifier, the method
2 comprising:
3 placing a
4 pad for entering an identifier,

5 a circuit for encrypting an identifier and
6 a link communicatively coupling the pad and the
7 encrypting circuit
8 adjacent in an access-resistant housing;
9 entering a identifier on the pad;
10 communicating the identifier to the encrypting circuit; and
11 encrypting the identifier by means of the encrypting circuit.

1 20. The method of claim 19, further comprising the step of
2 forwarding the encrypted identifier for verification.

1 21. An apparatus for encrypting an identifier, the
2 apparatus comprising:
3 a pad for entering an identifier;
4 a circuit for encrypting the entered identifier, the circuit
5 being the first circuit receiving and programmable or designed to
6 encrypt the entered identifier;
7 a link, communicatively coupling the pad and the encrypting
8 circuit; and
9 a housing, shielding the link and circuit from physical
10 access.

1 22. The apparatus of claim 21, wherein the circuit
2 comprises
3 a circuit adjacent the pad.